It was found that risk of lung cancer increases with the mean number of puffs taken per cigarette regardless of age or amount smoked per day. This was also generally true when analyses were carried out specifically for variations in the number of puffs taken per cigarette. The exception to this was observed only where the largest number of puffs were taken per cigarette. Finally, it was shown that taking more puffs towards the end of a cigarette entails a higher risk than puffing regularly, and that the most frequently exhibited puffing patterns, puffing most often at the beginning, carried the lowest risk. We suggest that if these results were upheld in future replications, further evidence would be at hand of a dose-response relationship linking lung cancer and exposure to tobacco tar. Furthermore, these data would suggest that smokers could lower their risk by taking fewer puffs per cigarette, taking them shortly after lighting up, and smoking with only short intervals between puffs.

Graham, S. Cancer of lung related to smoking behavior. Presented at a meeting of the American Public Health Association, 1967